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ABSTRACT

This paper presents the results of research investigating (1) the reliability and validity of the Ohio Work Values Inventory (OWVI) when used with public school administrators; (2) the work values of public school administrators; (3) differences in work values of male and female administrators; and (4) differences in work values of individuals at different levels of administration. Instruments were distributed to 701 school administrators from two central city and eight suburban school districts in Oregon and Washington, with a response rate of 55 percent. Coefficients alpha, means and standard deviations were calculated for all OWVI scales, and multivariate analyses were performed on the sex of the respondent and on the level of administration, along with factor analyses on responses to the 77 items of the OWVI. The research indicates that school administrators value jobs that are enjoyable, involve working with ideas, allow for self-realization and for helping others, and provide for independence and the opportunity to work with others. On 9 of the 11 work values, male and female public school administrators responded similarly, suggesting that both sexes find similar qualities of work personally rewarding and fulfilling. Finally, the scale mean for the work value of money was found to be less than those for the higher order needs of self-realization and altruism. Results are tabulated in seven statistical tables, and references are included. (TE)

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MEASURING WORK VALUES OF PUBLIC SCHOOL ADMINISTRATORS

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Objectives of Inquiry

Studying workers and their environment, in order to identify factors which contribute to a more harmonious employer-employee relationship, an improved work environment, and higher productivity, has been of interest to many researchers for a number of years. Recently, many authors have commented on changes in the work place, indicating that employees are becoming more dissatisfied, less productive, and harder to manage (Buchholz, 1977; Bowers and Franklin, 1977; Howard, 1981). This situation certainly adds to the problems of the leaders of businesses. For educational leaders, management problems have been aggravated by growing criticism of the quality and effectiveness of this nation's educational system. It is likely that this has contributed to an increase in stress and burnout among educational administrators; an interest in these variables is indicated in the literature (Jackson, 1977; DeLeonibus and Thompson, 1979; Alley, 1980; Brown and Carlton, 1980; Waggoner, 1983; Wax, 1983).

Since research suggests that the instructional leadership of a school is critical to the effectiveness of the school (Edmonds, 1979; Clark, Lotto, and McCarthy, 1980), it is likely that additional research will be directed to the administrative level of the school system, investigating the personal characteristics and environmental conditions which contribute to effective leadership. Among the personal characteristics which influence administrative behavior is the value system of the educational leader.

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A paper to be presented at the annual meeting of the National Council on Measurement in Education, New Orleans, April, 1984.

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Since research suggests that the instructional leadership of a school is critical to the effectiveness of the school (Edmonds, 1979; Clark, Lotto, and McCarthy, 1980), it is likely that additional research will be directed to the administrative level of the school system, investigating the personal characteristics and environmental conditions which contribute to effective leadership. Among the personal characteristics which influence administrative behavior is the value system of the educational leader.

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The values of an individual are central to his/her personality and behavior, affecting reasoning, learning, aspirations and interests (Combs and Snygg, 1959), and the extension of the values of an educational administrator into the world of work can be expected to influence perceptions, reaction to stressors, level of burnout experienced and behavior in the work place. Although an interest in values and the world of work is not new (Centers, 1949; Stefflre, 1962; Sheppard and Herrick, 1972; and Hackman and Lawler, 1971), little systematic study of the work values of educational administrators has been conducted. This dearth of research concerning the work values of educational administrators may be partially attributed to problems associated with the measurement of this variable.

The Ohio Work Values Inventory (OWVI) was constructed by Hales and Fenner (1973a) for use in investigating the nature of the life values of school children when examined from the perspective of the world of work. It is one of the more inclusive of work value inventories, measuring a total of 11 extrinsic and intrinsic work values. The use of the OWVI has been extended to measure the work values of several different populations such as the work values of elementary students (Hales and Fenner, 1972, 1973b), undergraduate students (Hales and Hartman, 1978), second-year technical college students (Hales and Hartman, 1977), nursing students and experienced nurses (Hales, 1977) and secondary school teachers (Klampe, 1983). However, it is necessary to examine the reliability of the OWVI with an adult population, if it is to be used to identify work values of a population other than that for which it was originally constructed.

The purpose of this article is to present the results of research investigating: (a) the reliability and validity of the OWVI when used with public school administrators; (b) the work values of public school

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administrators; (c) differences in work values of male and female administrators; and (d) differences in work values of individuals at different levels of administration.

Methodology

Administrators (701) from two central city and eight suburban school districts in Oregon and Washington were inventoried in the Spring of 1983 with a response rate of 55%. Instruments were distributed in administrative team meetings or by the district's intradistrict mail system. Individuals were distributed across administrative levels: central office (36.3%); elementary school (29.1%); middle/junior high (15.7%); senior high (18.0%); and school combination (0.6%). The responding population consisted of 71.8% male and 28.2% female administrators with a mean age of 45.9 and mean number of years as an educational administrator of 11.7 years.

Coefficients alpha, means and standard deviations were calculated for all OWVI scales. Additionally, multivariate analyses of variance were performed on the sex of the respondent and on the level of administration with all OWVI scales. Factor analyses, using oblimin and varimax rotations, were performed on the responses of the sample on the 77 items of the OWVI.

Results

The means for each scale of the OWVI ranged from 14.96 for the Solitude scale to 32.31 for the scale of Task Satisfaction. Table 1 presents the means and standard deviations for each OWVI scale. Respondents assigned great importance to the work value of Task Satisfaction, or to having work that is interesting, enjoyable and something the individual can look forward to doing each day, and assigned little importance to a job in which the administrator has

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few or brief structured encounters. Administrators did not assign much importance to work situations characterized by the absence of close relationships with other people. The ranges for the Task Satisfaction and Solitude scales were 15 and 26, respectively.

Self-realization was valued in the "considerable" to "great" range of values by the public school administrators (mean of 31.74 and range of 18). Respondents in the sample highly valued work permitting one to utilize one's skills, abilities or talents, allowing for continued personal growth and realization of the administrator's full potential.

"Considerable" importance was assigned to the work values of Altruism (mean of 29.16), Ideas/Data Orientation (mean of 28.81) and Independence (mean of 25.75). Respondents considerably valued a job that provided opportunities to work with other people in a helping, supportive role, that allowed independence in determining working conditions and was free from close supervision, and that provided an opportunity to work with facts and ideas. The range for the Altruism scale was 27, and the range for both the Independence and Ideas/Data scales was 24.

"Moderate" to "considerable" importance was assigned to the work values of Control (mean of 23.93) and Money (mean of 23.38). These scales measured the importance the administrator assigned to taking a leadership role or responsibility for other workers and the importance the administrator assigned to having a substantial income, earning more than enough money to satisfy life's basic needs. The range of scores for both the Control and Money scales was 28.

Respondents assigned moderate importance to the work values of Security (mean of 22.20), Prestige (mean of 20.24) and Object Orientation (mean of 18.73). Administrators only moderately valued a job immune to unpredictable

layoffs, one that was steady and dependable. The administrators moderately desired a job bringing personal recognition and an opportunity to meet and associate with important people. Similarly, administrators moderately valued a job in which one handles or manipulates physical objects. The range for each of these three scales (Security, Prestige and Object Orientation) scales was 28.

Table 1 About Here

Reliability coefficients (alpha) ranged from .84 for the Independence scale to a value of .95 for Money, indicating a reasonable degree of internal consistency for the items of the OWVI; the median was approximately .88 (see Table 2).

Table 2 About Here

Scale intercorrelations ranged from .64 (Self-realization with Task Satisfaction) to -.18 (Altruism with Solitude), with a median value of approximately .22 (see Table 3).

Table 3 About Here

The factor analysis, using an oblimin rotation with Kaiser normalization (Delta = -.30), yielded eleven factors with eigen values greater than .90. Seven of the factors exhibited congruence with seven of the scales of the OWVI, in that the principal loadings of the items were at least .40 on the scales to which they were assigned. These were: factor two (Money); factor three (Prestige); factor four (Object Orientation); factor five (Security); factor seven

(Control); factor eight (Altruism); and factor nine (Ideas/Data). All of the items for the Solitude scale had their principal loadings on factor six, but item 42 failed to meet the .40 criterion (its loading was .35). Also, all of the items on the Independence scale had their principal loadings on factor 10, but item 28 failed to meet the .40 criterion (its loading was .36). Six of the seven items for the Task Satisfaction scale had their principal loadings at .40 or greater on factor 11; item eight had its principal loading on factor one (Self-realization) but also had a secondary loading on factor 11. Factor one contained five of the Self-realization items (principal loadings of .40 or greater) and item eight from the Task Satisfaction scale (.42). Item 38 had no principal loadings of .40 or greater, it split between factor one (where it belongs) and factor nine. Finally, item 71 split between three factors (one, nine and 11); it also belongs to the Self-realization scale. Table 4 contains the factors found with the items and loadings on each factor, factor eigen values, and percent of variance accounted for by each factor.

Table 4 About Here

Since the OWVI scales of Task Satisfaction and Self-realization were constructed to measure two aspects of self-realization as postulated by Combs and Snygg (1959), it was decided to repeat the factor analysis, using an eigen value criterion of 1.00. Using a varimax rotation, 10 factors were found (see Table 5). With the exception of item 38, all items on the Self-realization and Task Satisfaction scales had principal loadings of at least .40 on factor one. Item 38 had loadings greater than .40 on factors one and five. Seven scales exhibited congruence with seven factors (all items on each scale loaded .40 or greater on a specific factor): Money (factor two); Security (factor three);

Prestige (factor four); Ideas/Data (factor five); Control (factor six); Altruism (factor seven); and Object Orientation (factor nine). All of the Solitude items exhibited principal loadings on factor eight, but item 42 failed to meet the .40 criterion; its loading was .36. All of the Independence items exhibited principal loadings on factor 10, but item 28 failed to meet the .40 criterion; its loading was .36.

Table 5 About Here

A multivariate analysis of variance, with sex of the respondent as the independent variable, was performed. The F value for the Hotelling's test was 2.0339; the statistical hypothesis was rejected ($p < .01$). The subsequent univariate analyses of variance found two significant differences. Women administrators assigned more importance to the work values of Self-realization ($F = 11.97$; with 1, 381 df, $p < .01$) and Ideas/Data Orientation ($F = 6.82$; with 1, 381 df, $p < .01$) (see Table 6).

Table 6 About Here

A multivariate analysis of variance was performed, with level of administration as the independent variable. The F value for the Hotelling's test was 5.938; the statistical hypothesis was rejected ($p < .01$). In the subsequent univariate analyses of variance, the following three significant differences were found: Altruism ($F = 2.73$; with 3, 381 df, $p < .05$); Independence ($F = 5.56$; with 3, 381 df, $p < .01$); and Prestige ($F = 3.79$; with 3, 381 df, $p < .05$). Using a modified LSD procedure for all pair-wise comparisons of means for significant dependent variables, with a confidence level of .05 for

each comparison, it was found that central office administrators placed significantly less value on Altruism and greater value on Prestige than did elementary school administrators and placed significantly greater value on Independence than did all three levels of building administrators. See Table 7.

Table 7 About Here

Educational Importance of the Study

The Ohio Work Values Inventory was found to a satisfactory instrument in measuring the work values of public school administrators, suggesting it may have utility for other adult populations. The reliability coefficients indicated a reasonable degree of internal consistency (ranging from .84 to .95); they compare favorably with other instruments measuring values. The results of the factor analysis supported the conclusions of other studies that the OWVI demonstrates construct validity (Fenner and Hales, 1973; Hartman, 1977).

Instructional leadership is crucial to the effectiveness of schools (Edmonds, 1979; Clark, Lotto and McCarthy, 1980). Employees whose work values are violated in job settings can feel stress which ultimately leads to burnout (Waggoner, 1983). Since management has an interest in productive workers, organizations are attempting to identify the current work values of their employees in order that practices may be implemented that are compatible with those values. This research indicates that school administrators value jobs that are enjoyable, involve working with ideas, allow for self-realization and helping others and provide for independence and the opportunity to work with others. School districts generally should guard against assigning

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administrators jobs allowing little interpersonal contacts and relationships with others.

On nine of the eleven work values, male and female public school administrators responded similarly. School districts can be confident that male and female administrators find similar qualities of work personally rewarding and fulfilling.

The scale mean for the work value of Money was 23.38, much less than the means of the higher order needs of Self-realization and Altruism. Sheppard and Herrick (1972) suggested that overall job satisfaction was more highly correlated with opportunity for personal growth and interesting work than pay. It would appear, then, that the school districts could affect the job satisfaction of their administrators more with attention paid to the tasks assigned the administrators than with the amount of their paychecks.

Table 1

Means and Standard Deviations for OWVI Scales

Scale	Mean	Standard Deviation
Altruism	29.16	4.76
Control	23.93	5.59
Ideas/Data Orientation	28.81	4.28
Independence	25.75	4.98
Money	23.38	7.29
Object Orientation	18.73	6.22
Prestige	20.24	6.53
Security	22.20	7.36
Self-realization	31.74	3.31
Solitude	14.96	4.94
Task Satisfaction	32.31	3.25

Table 2

Coefficient Alpha for Each OWVI Scale

Scale	Coefficient Alpha
Altruism	.92
Control	.92
Ideas/Data Orientation	.88
Independence	.84
Money	.95
Object Orientation	.86
Prestige	.93
Security	.94
Self-realization	.88
Solitude	.85
Task Satisfaction	.88

Table 3

Scale Intercorrelations of OWVI

Scale	ObjO	Sec	Con	SR	Ind	Mon	TS	Sol	I/D	Pres
Altruism	.13	.20	.21	.48	.17	.06	.42	-.18	.43	.22
Object Orientation		.14	.09	.11	.12	.06	.09	.11	.19	.08
Security			.32	.23	.29	.41	.24	.14	.02	.20
Control				.31	.38	.29	.18	.10	.30	.47
Self-realization					.33	.16	.64	-.06	.60	.25
Independence						.50	.39	.32	.26	.36
Money							.31	.12	.11	.32
Task Satisfaction								.02	.37	.20
Solitude									-.01	.11
Ideas/Data										.33

Table 4

Eleven-Factor, Principal Components Factor Analysis of the OWVI Items with Oblimin Rotation (Delta = -.30)

Factor	Scale	Item Number and Factor Loading							Eigen Value	% Variance
1	Self-realization	5(.41)	16(.46)	27(.52)	38[a]	49(.49)	60(.46)	71[b] 8(.42)[c]	15.54	33.1
2	Money	7(.73)	18(.74)	29(.84)	40(.89)	51(.68)	62(.80)	73(.83)	7.56	16.1
3	Prestige	11(.75)	22(.90)	33(.49)	44(.87)	55(.84)	66(.90)	77(.55)	4.63	9.9
4	Object Orientation	2(.60)	13(.82)	24(.60)	35(.88)	46(.79)	57(.44)	68(.66)	3.91	8.4
5	Security	3(.62)	14(.73)	25(.78)	36(.72)	47(.86)	58(.87)	69(.91)	3.77	8.0
6	Solitude	9(.72)	20(.52)	31(.74)	42(.35)[d]	53(.84)	64(.53)	75(.85)	3.11	6.6
7	Control	4(.72)	15(.55)	26(.83)	37(.76)	48(.80)	59(.82)	70(.62)	2.36	5.0
8	Altruism	1(.64)	12(.72)	23(.70)	34(.73)	45(.81)	56(.79)	67(.76)	1.95	4.2
9	Ideas/Data	10(.57)	21(.42)	32(.51)	43(.69)	54(.51)	65(.74)	76(.79)	1.80	3.8
10	Independence	6(.74)	17(.52)	28(.36)[e]	39(.65)	50(.67)	61(.48)	72(.56)	1.32	2.8
11	Task Satisfaction	8[f]	19(.48)	30(.74)	41(.56)	52(.74)	63(.72)	74(.60)	0.94	2.0

[a] The factor loading was below .40; the loading split with factors one and nine.

[b] The factor loading was below .40; the loading split with factors one, 11 and nine.

[c] This item is from the Task Satisfaction scale; it had a secondary loading of .35 on that scale.

[d] The primary loading of item 42 was on Solitude, but it is below the .40 criterion level.

[e] The primary loading of item 28 was on Independence, but it is below the .40 criterion level.

[f] Item eight loaded on Self-realization (see note c).

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Table 5

Ten-Factor, Factor Analysis of the OWVI Items with Varimax Rotation

Factor	Scale	Item Number and Factor Loading							Eigen Value	% Variance
1	Self-realization	5(.48)	16(.56)	27(.60)	38(.42)[a]	49(.62)	60(.60)	71(.54)		
	Task Satisfaction	8(.63)	19(.74)	30(.63)	41(.66)	52(.59)	63(.69)	74(.68)	15.53	33.9
2	Money	7(.72)	18(.75)	29(.83)	40(.87)	51(.75)	62(.83)	73(.84)	7.55	16.5
3	Security	3(.63)	14(.77)	25(.81)	36(.72)	47(.85)	58(.86)	69(.85)	4.62	10.1
4	Prestige	11(.74)	22(.87)	33(.50)	44(.84)	55(.83)	66(.87)	77(.57)	3.91	8.5
5	Ideas/Data	10(.58)	21(.54)	32(.64)	43(.69)	54(.55)	65(.73)	76(.73)	3.76	8.2
6	Control	4(.72)	15(.59)	26(.82)	37(.75)	48(.76)	59(.79)	70(.64)	3.10	6.8
7	Altruism	1(.60)	12(.67)	23(.62)	34(.69)	45(.79)	56(.79)	67(.76)	2.35	5.1
8	Solitude	9(.71)	20(.53)	31(.73)	42(.36)[b]	53(.84)	64(.54)	75(.84)	1.94	4.2
9	Object Orientation	2(.58)	13(.81)	24(.60)	35(.88)	46(.80)	57(.43)	68(.69)	1.76	3.9
10	Independence	6(.70)	17(.52)	28(.36)[b]	39(.62)	50(.63)	61(.46)	72(.53)	1.31	2.9

[a] Also loaded on factor five at .45.

[b] Principal loading but below criterion cutoff of .40.

Table 6

Analysis of Variance Table for Sex of Respondent

Scale	Means		MS B	MS W	F	Significance*
	Male	Female				
Altruism	29.2	29.1	0.228	22.580	0.01	.920
Object Orientation	19.0	17.9	101.811	38.636	2.64	.105
Security	22.4	21.5	61.252	54.298	1.13	.289
Control	24.0	23.7	9.296	31.463	0.30	.587
Self-realization	31.4	32.7	123.704	10.337	11.97	.001
Independence	25.8	25.6	2.805	24.782	0.11	.737
Money	23.5	23.1	13.261	53.607	0.25	.619
Task Satisfaction	32.2	32.8	30.329	10.091	3.01	.084
Solitude	15.2	14.2	87.801	24.372	3.60	.058
Ideas/Data	28.5	29.7	122.481	17.948	6.82	.009
Prestige	20.0	20.9	62.184	42.701	1.46	.228

*df = 1, 381

Table 7

Analysis of Variance Table by Administrative Level

Scale	Mean				MS B	MS W	F	Sign.*
	Central	Elem	Jr HS/MS	High S.				
Altruism	28.4	30.1	28.9	29.3	60.889	22.291	2.732	.041
Obj. Orien.	19.4	19.3	18.0	17.2	99.110	37.996	2.608	.051
Security	21.9	23.0	22.0	21.6	38.135	54.543	0.699	.553
Control	24.0	24.1	23.1	24.0	15.998	31.406	0.509	.676
Self-realiz	31.6	32.1	31.4	31.8	8.945	10.810	0.828	.479
Independence	27.1	25.2	24.8	24.8	132.729	23.882	5.558	.001
Money	24.3	22.2	24.4	22.3	137.085	52.267	2.623	.051
Task Satis.	32.1	32.9	32.4	31.8	21.521	10.419	2.066	.104
Solitude	15.7	14.0	15.4	14.6	60.900	24.206	2.516	.058
Ideas/Data	29.3	28.9	28.2	28.3	26.832	18.086	1.484	.219
Prestige	21.7	19.2	19.7	19.4	158.389	41.755	3.793	.011

Significant Mean Comparisons

Altruism	Central Office vs. Elementary School Principals
Independence	Central Office vs. Elementary School Principals
Independence	Central Office vs. Middle/Jr. HS Principals
Independence	Central Office vs. High School Principals
Prestige	Central Office vs. Elementary School Principals

*df = 3, 381

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